

WHAT IS CLAIMED IS:

1. A process for forming free-flowing pellets of ethylene-based, copolymers comprising repeating polymerized units of
 - (i) at least 50% by weight, based on the weight of the copolymer, of ethylene,
 - (ii) 5 to 30% by weight, based on the weight of the copolymer, of an ethylenically unsaturated acid selected from the group consisting of acrylic acid and methacrylic acid; and
 - (iii) 0 to 40% by weight, based on the weight of the copolymer, of an alkyl (meth)acrylate,wherein the copolymer has 0-100% of the acid groups neutralized with one or more metal cations,
the process comprising the steps of
 - (i) contacting the pellets with an aqueous solution of a sufficient amount of one or more metal salts of an aliphatic acid having fewer than 12 carbon atoms to increase the stick temperature to a temperature at least 5°C higher than the stick temperature of the pellets before being contacted; and,
 - (ii) drying the pellets.
2. The process of claim 1 wherein the stick temperature of the contacted pellet is raised to at least 25°C.
3. The process of claim 1 or 2 wherein the one or more metal salts of aliphatic acid are selected from the group consisting of sodium salts of C₄₋₁₀ aliphatic acids.
4. The process of claim 3 wherein the aqueous solution is sprayed onto the copolymer pellets and the resulting coated pellets are dried with blown air at ambient temperature or higher.

5. The process of claim 3 wherein the pellets are immersed in the aqueous solution, the pellets are removed from the aqueous solution, and the pellets are dried with blown air at ambient temperature or higher.

6. The process of claim 3 wherein the sodium salt is selected from the group consisting of sodium butyrate, sodium caproate, sodium caprylate, and sodium caprate, and the coating of the sodium salt is applied in an amount of 25-6,000 parts by weight per million parts copolymer.

7. The process of claim 6 wherein the sodium salt is sodium caprylate and the sodium caprylate is applied in an amount of 50-2,500 parts by weight per million parts copolymer to increase the copolymer stick temperature to 30 to 60°C and wherein the ethylene copolymer has a melt index of 0.5 to 2000 g/10 minutes determined according to ASTM D 1238 condition E.

8. Pellets of high-stick-temperature, ethylene-based copolymer comprising
- a. ethylene-based copolymer having repeating polymerized units of
 - (i) at least 50% by weight, based on the weight of the copolymer, of ethylene,
 - (ii) 5 to 30% by weight, based on the weight of the copolymer, of an ethylenically unsaturated acid selected from the group consisting of acrylic acid and methacrylic acid; and
 - (iii) 0 to 40% by weight, based on the weight of the copolymer, of an alkyl (meth)acrylate,
wherein the copolymer has 0-100% of the acid groups neutralized with metal cations, and
 - b. a sufficient amount of a surface coating comprising one or more metal salts of an aliphatic acid having fewer than 12 carbon atoms to increase the copolymer stick temperature to a temperature at least 5°C above the temperature of the pellets without the coating.

9. The pellets of claim 8 wherein the surface coating comprises one or more metal salts of a C₄₋₁₀ aliphatic acid in an amount of 25 to 6,000 parts metal salt by weight per million parts copolymer.

10. The pellets of claim 9 in which the metal portion of the metal salts is selected from the group consisting of calcium, sodium, magnesium and zinc.

11. The pellets of claim 10 wherein the high-stick-temperature, ethylene-based copolymer has a stick temperature in the range of 30 to 60°C, the copolymer has a melt index of 0.5 to 2000 g/10 minutes determined according to ASTM D 1238 Condition E, and the surface coating is selected from the group consisting of sodium butyrate, sodium caproate, sodium caprylate and sodium caprate.

12. The pellets of claim 11 comprising a copolymer of 15-25% by weight of acrylic acid or methacrylic acid and 75-85 % by weight ethylene and a surface coating of sodium caprylate in an amount of 50-2,500 parts of sodium caprylate by weight per million parts copolymer.

13. The pellets of claim 11 comprising a copolymer of 15-25% by weight of acrylic acid or methacrylic acid, 5-30% alkyl(meth)acrylate and 65-85% by weight ethylene and a surface coating of sodium caprylate in an amount of 50-2,500 parts of sodium caprylate by weight per million parts copolymer.

14. The pellets of claim 12 or 13 wherein 5-70% by weight of the copolymer acid groups are neutralized with one or more metal ions selected from the group consisting of zinc, magnesium, sodium and lithium.